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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/020,460	12/18/2001	Jun Ito	P 282612 T36-141808M/KOH	9881	
7590 12/17/2003			EXAM	INER	
SEAN M. MCGINN			CRANE, SARA W		
MCGINN & GIBB, PLLC				D. DDD 1473 (DDD	
8321 OLD COURTHOUSE ROAD			ART UNIT	PAPER NUMBER	
SUITE 200			2811		
VIENNA, VA 22182-3817			DATE MAILED: 12/17/2003	3	

Please find below and/or attached an Office communication concerning this application or proceeding.

		A	eation No	Applicant(s)	<u> </u>			
34	•		cation No.	\mathbf{I}	A			
			0,460	ITO ET AL.				
•	Office Action Summary	Exam		Art Unit				
	The ARAH INO DATE - SALE		V. Crane	2811				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply								
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status								
1)	Responsive to communication(s) file	ed on						
2a)⊠	This action is FINAL . 2	b)□ This action i	s non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.								
Disposition of Claims								
 4) Claim(s) 1-6,8-11,20 and 23-31 is/are pending in the application. 4a) Of the above claim(s) 8-11,30 and 31 is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) 1-6,20 and 23-29 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement. 								
Applicat	ion Papers							
9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.								
Priority under 35 U.S.C. §§ 119 and 120								
 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☐ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78. a) ☐ The translation of the foreign language provisional application has been received. 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78. 								
Attachmer	nt(s)		_					
2) 🔲 Noti	ce of References Cited (PTO-892) ce of Draftsperson's Patent Drawing Review (F rmation Disclosure Statement(s) (PTO-1449) F		· <u>—</u>	v Summary (PTO-413) Paper No(s). f Informal Patent Application (PTO-1				

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DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-6, 20, and 23-29 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,426,512. Although the conflicting claims are not identical, they are not patentably distinct from each other because pending claims 1-6 and 20 are generic to the patented claims, and thus encompass the same subject matter. Note that patented claim 1 recites the substrate, the undercoat layer formed on the substrate and containing metal nitride, and a group III nitride layer formed on the undercoat layer. The undercoat layer must therefore separate the group II nitride layer from the substrate. Pending claim 1 is in open claim language ("comprising" in the preamble) and therefore would encompass the structure of patented claim 1, which includes an additional (titanium) layer. Open claim language means that unnamed structure can be encompassed by the claim. With respect to claim 23, any undercoat layer will

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"predetermine" some sort of crystallinity in the overlying layers. With respect to claim 24, nitrides that are known, and have known properties, would have been obvious in view of the generic recitation of "nitride" in patented claim 1, in order to obtain known advantages. With respect to claim 25, it would have been obvious to optimize layer thickness to obtain optimal growth of overlying layers. With respect to claim 26, patented claim 1 recites a titanium layer adjacent the undercoat layer. With respect to claims 27-28, a light emitting device would have been obvious because this is the most common known use for group III nitride semiconductor.

Conclusion

Applicant argues that the pending claims would not have been obvious in view of the patented claims, because the patented specification is not considered in the double patenting rejection. As noted above, comparing the recited layers of pending claim 1 and patented claim 1 shows that the only difference is the recitation of the titanium layer in the patented claim. Pending claim 1 is therefore generic to patented claim 1. The reasoning is anticipation, i.e., a genus is anticipated by a species.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Crane, whose telephone number is (703) 308-4894.

The fax phone number for this Group is (703) 873-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist, whose telephone number is (703) 308-0956.

Sara W. Crane Primary Examiner

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